

In paragraph 4 I stated that the holotype was figured by Woods (1899) on plate 10, figure 14. This should have read pl. 10, figs. 11a-c. The specimen number is correct.

I hope that the correction of this point will let this application be accepted by the International Commission on Zoological Nomenclature.

COMMENT ON THE PROPOSED DESIGNATION OF A TYPE SPECIES FOR  
*GNATHODUS* PANDER, 1856 (CONODONTA). Z.N.(S) 2279  
see vol. 36: 57-62)

(1) By F.H.T. Rhodes (*President, Cornell University, USA*)

I am writing to support the proposal that the Commission should exercise its plenary powers to set aside all designations of type species hitherto made for the genus *Gnathodus* Pander, 1856, and designate *G. texanus* Roundy as the new type species of the genus.

The reasons that lead Dr Lane and Professor Ziegler to make this proposal are fully and lucidly set out in their paper. I wish to speak specifically to the need for nomenclatural and stratigraphic stability. This is especially important because much of our biostratigraphy in the Lower Carboniferous is based on species of *Gnathodus*. To ascribe all the specimens now placed in these species to another genus, of whatever name, would create taxonomic and stratigraphic confusion. Furthermore, nothing would be gained from this procedure, because the name *G. mosquensis*, in the absence of type material, must be treated as a *nomen dubium*.

The best way to retain the nomenclatural stability that has existed for over 120 years is to accept Lane & Ziegler's proposal, which I believe will receive widespread support from conodont workers.

(2) By Glen K. Merrill (*College of Charleston, South Carolina 29401, USA*)

Designation of a replacement type species for this genus under the plenary powers is long overdue. The original type species, *G. mosquensis*, is a *nomen dubium* according to nearly all specialists working with the group. Lane & Ziegler have accurately outlined the facts of the occurrence and fairly expressed consensus among specialists regarding the inadequacy of the existing situation.

Apart from the biostratigraphic problems that might result from the evaluation by Barskov *et al.*, there is another argument for stabilising the generic concept of *Gnathodus* not mentioned by Lane & Ziegler. Many workers dealing with conodonts from Lower Carboniferous rocks now recognise that the longstanding concept of *Gnathodus* embraces more than a single generic group. Attempts to make meaningful distinctions have been frustrated, how-

ever, by the lack of a realistic objective basis for defining the base stock taxonomically, not necessarily phylogenetically) of the gnathodids. Consequently, most of the proposed new genera have remained manuscript names because they could not be distinguished adequately from *Gnathodus*.

The procedures advocated in the works by Barskov, Kazur, *et al.* would not only produce nomenclatural chaos, but are suspect in terms of fact as well. Although it is not possible to say what *Gnathodus mosquensis* is, it is possible to say what it probably is not. The illustrations in Pander differ in significant respects from representative specimens of *Streptognathodus cancellosus* (or *S. oppletus*) and I seriously doubt the correctness of this comparison. It should be noted that selection of *S. cancellosus* as the synonym of *G. mosquensis* is at best a selection among several species that occur together in a single horizon. Systematics should be based on objective reality, not probability. Furthermore, after more than a century there is more than a small chance of misidentification of the type locality or the type horizon, or both. A relatively slight error in stratigraphic position would add several more species and at least one additional genus to the total of candidates for the original *G. mosquensis*. In summary, there is no way we can ever expect to know what was represented by *G. mosquensis*.

As a replacement, *Gnathodus texanus* is adequate, but not ideal as a type species. Its early publication date (1926) is not a particular advantage (Roundy also described another species in that paper that most modern workers assign to *Gnathodus* although he did not). The most serious drawback to *G. texanus* as a type species is that it can no longer be collected at its type locality. The holotype is extant, however, and additional specimens can be collected at neighbouring localities so its stability is not in jeopardy.

In the strongest possible terms I urge the Commission to use its plenary powers to designate *Gnathodus texanus* Roundy, 1926, as the type species of *Gnathodus* Panzer, 1856.

(3) By David L. Clark (*University of Wisconsin, Madison, Wisconsin 53706, USA*)

The taxonomic problem involved in this case is of concern for workers in the Permian System as well as the Carboniferous. I have discussed it with a number of Permian taxonomists and we agree that the proposal by Lane & Ziegler is a rational plan to follow and should be supported.

[Editor's Note. This application has also been supported by Dr. B.D.E. Chatterton (*University of Alberta*), Professor G.D. Webster (*Washington State University*), Professor R. Burton (*West Texas State University*) and Dr David L. Dunn (6103 Old Oak Circle, Sugar Land, Texas 77478), R.V.M.]